2 DISCUSSION OF THE PROBLEM

This section provides an overview of existing and forecast traffic conditions within the Highway 101 Corridor, and travel characteristics which contribute to those conditions. For purposes of this analysis, the Corridor limits are defined as that portion of Highway 101 from Milpas Street in Santa Barbara on the west to the Ventura County line on the east. The Corridor is also considered to include adjacent, parallel arterials to Highway 101 within the limits of the Corridor. Recognizing that:

significant portions of the traffic along the Highway 101 Corridor, as defined above, have origins and/or destinations outside the Corridor;

travel trends in the significantly urbanized areas tributary to the Corridor will affect traffic conditions within the Corridor;

•. solutions to accommodate future travel demand within the Corridor will likely extend beyond the limits of the Corridor;

a somewhat larger Study Area has been identified.

The following sections provide a description of the Corridor and its roadway facilities; define the Study Area limits; discuss characteristics and trends which might affect travel in the Highway 101 Corridor; review existing traffic conditions; and, describe forecast population and employment growth and its estimated effects on future traffic conditions within the Corridor.

2.1 STUDY AREA

2.1.1 Highway 101 Corridor

The project limits for the Alternatives Analysis, Highway 101 Widening Study are the same as those utilized in the *Draft Environmental Impact Statement/Report - Route 101 Six-Lane Projec*t, which are Milpas Street in the City of Santa Barbara on the west and 1.1 miles west of the Santa Barbara/Ventura County line in the City of Carpinteria on the east. Although Highway 101 is the dominant transportation facility within these project limits, there are a number of adjacent, parallel arterials which serve local circulation, provide access to/from Highway 101, and could, in some instances of severe congestion along Highway 101, provide alternative routes to the freeway. Since these adjacent, parallel facilities could be affected by conditions along Highway 101, they are included in what is called the "Highway 101 Corridor". These facilities include:

Cabrillo Boulevard (Route 225)
Old Coast Highway/Coast Village Drive
•. North Jameson Lane
•. Ortega Hill Road/Lillie Avenue/Via Real

- Carpinteria Avenue
- Route 192

Figure 2-1 shows Highway 101 and the associated roadways in the Corridor.

2.1.2 Study Area Definition

The Study Area represents the "travel shed" or area tributary to Highway 101. Within this area, factors affecting travel behavior or characteristics would significantly affect traffic conditions in the Highway 101 Corridor. The northern limit of the Corridor is Milpas Street, which provides direct access to downtown Santa Barbara; the downtown is a major attractor of employment and commercial trips in the region. The Study Area was, therefore, defined to include the downtown “core” (area bounded by Highway 101, Olive Mill Road and Mission Street), as well as Stearns Wharf and the surrounding waterfront recreational areas.

Additionally, the Study Area is bounded by the Ventura County line on the east, the Pacific Ocean on the south, Hope Avenue (north of Highway 101) and Las Positas Road (south of Highway 101) on the west and the foothills on the north. It encompasses the City of Carpinteria, the unincorporated areas of Montecito and Summerland, and portions of the City of Santa Barbara including the downtown, the waterfront tourist commercial areas and the Mesa residential area. Figure 2-1 also depicts the Study Area boundaries.

Some planning data such as census information was available only in geographic units defined by corporate boundaries or census divisions. In those cases, the analysis area is expanded to the "South Coast". The South Coast is defined as the Carpinteria and Santa Barbara Census Divisions. Figure 2-2 depicts the Census Divisions and the area included in the South Coast.

2.2 EXISTING CONDITIONS

The following section describes the existing conditions which influence traffic conditions in the Highway 101 Corridor.

2.2.1 Existing Setting

In 1990 according to the Census Bureau, approximately 191,370 people lived in the South Coast, or approximately 52 percent of the estimated population of Santa Barbara County. Approximately 98,100 jobs, or 60 percent of the estimated 163,200 jobs in Santa Barbara County in 1990 were located in the South Coast.

The relationship between housing and employment opportunities has long been recognized as a key factor in regional commute patterns. Table 2-1 summarizes the jobs per capita for the South Coast, for Santa Barbara County as a whole, and for adjacent Ventura County. Review of Table 2-1 shows that, in 1990, the South Coast provided approximately .51 jobs per capita, higher than the County as a whole, and significantly higher than Ventura County, making the South Coast somewhat more “job-rich” than its surrounding areas.

The license plate, intercept travel survey conducted along Highway 101 (at San Ysidro Road) as part of this study, confirmed a presumed

weekday commute pattern between Ventura County and the Study Area. Figure 2-3 delineates the primary commute areas and the Study Area used to summarize travel survey responses. Table 2-3 summarizes the origins and destination patterns of Highway 101 travelers as observed in the intercept study. During the evening peak period, approximately 23 percent of the drivers along Highway 101 responding to the survey were traveling to Ventura County from a starting point in the Corridor (west of San Ysidro Road). An additional 4 percent were traveling south of Ventura County to Los Angeles County and beyond. An additional 22 percent of drivers on Highway 101 indicated that they had begun their trip in the South Coast, but outside the limits of the Corridor

Table 2-1
Forecast Population and Employment Growth

	1990	2015	Total Change 1990-2015	% Change 1990-2015
POPULATION				
SANTA BARBARA COUNTY	369,610	479,320	109,710	30%
South Coast	191,370	233,600	42,230	22%
So. Coast % of Total	52%	49%		
VENTURA COUNTY (a)	669,120	870,570	201,450	30%
EMPLOYMENT				
SANTA BARBARA COUNTY	163,200	203,800	40,600	25%
South Coast	98,135	110,315	12,180	12%
So. Coast % of Total	60%	54%		
VENTURA COUNTY (a)	275,000	407,590	132,590	48%
EMPLOYMENT/POPULATION				
SANTA BARBARA COUNTY	0.44	0.43		
South Coast	0.51	0.47		
VENTURA COUNTY (a)	0.41	0.47		

(a) Ventura County data reflects a year 2010 horizon.
Source: Regional Growth Forecast 94, SBCAG, 1994.
Regional Mobility Element, SCAG, 1994.

and were traveling to Ventura County. Therefore, based on the results of the License Plate survey, approximately 45 percent of drivers along Highway 101 in the Corridor during the weekday evening peak period began their trip in the South Coast and traveled to Ventura County. These data indicate that the travel market between Ventura and Santa Barbara counties is currently a significant portion of existing traffic on Highway 101, and is also forecast by SBCAG to continue to be so through the year 2015.

Santa Barbara County is also a major tourist destination and Highway 101 is a major Corridor for accessing key tourist destinations in Santa Barbara County, as well as the rest of the central and northern California coastal areas. A survey conducted in 1990 by the Santa Barbara Conference and Visitors Bureau (ref.) found that, of the tourists that visited Santa Barbara County, approximately 41 percent came from Southern California and 74 percent arrived by car (see

Table 2-2). Consistent findings were obtained from the April, 1994 intercept travel survey. Approximately 17 percent of the travelers southbound on Highway 101 during the Sunday evening peak period were traveling from locations in the Corridor to destinations in Ventura County; an additional 16 percent were traveling to destinations south of Ventura County, predominantly in Los Angeles County. Approximately 50 percent of the travelers southbound along Highway 101 during the Sunday evening peak period had started their trip in the South Coast and were traveling to Ventura County or continuing further south (see Table 2-3).

As a key transportation facility linking the Los Angeles basin with California's central and northern coastal communities, the Highway 101 Corridor also carries a component of "through traffic" traveling completely through the Study Area. The SBCAG travel model estimates that approximately 24 to 37 percent of the traffic on Highway 101 in the Corridor is traveling through the Corridor with no origin or destination in the Corridor area. If the South Coast as a whole is considered, approximately 5 to 8 percent of the traffic on Highway 101 in the Corridor is traveling through the South Coast without either an origin or destination in the South Coast. The license plate travel survey found that approximately 7 percent of the drivers traveling southbound in the Corridor during the weekday evening peak hour were traveling through the South Coast without either an origin or destination within the South Coast. During the weekday midday period, the reported through trips were slightly higher, with approximately 35 percent of the survey respondents indicating they were traveling through the South Coast. Also, as would be expected, the percent of through trips reported during the Sunday peak period survey was somewhat higher (24.5 percent) than the average weekday condition as estimated by the SBCAG travel forecasting model. The proportion of respondents indicating that they traveled through the Corridor without stopping ranged from a low of 55 percent during the weekday evening peak period to a high of 64 percent during the weekday midday time period. Table 2-3 also delineates the estimated "through" trip component of travel in the Highway 101 Corridor.

Based on the SBCAG travel forecasting model estimate of 1990 conditions, approximately 23 percent of the average daily person trips generated in the Study Area are work related trips, with approximately 12 percent being Home-Based Work trips. Approximately 10 percent are Home-to-Shop trips, and 6 percent are Home-to-School trips. The largest trip purpose (27%) in the Study Area is estimated to be Home-to-Other trips, which includes resident recreational trips, trips to the doctors, and any other trip which is not to work, school or shopping. Visitor trips are estimated to comprise approximately 4 percent of the Study Area trips on an average daily basis. Table 2-4 summarizes estimated 1990 average daily person trips by trip purpose.

The intercept travel survey found that the dominant trip purpose for travelers on Highway 101 during the weekday evening peak period was so-called Home-Based Work trips (which are defined to include both home-to-work and work-to-home trips), since most of the drivers

during this time of day were commuters returning home from work. However, even during the weekday peak period, approximately 19 percent of the trips on Highway 101 were identified as Home-to-Other (see Table 2-5). This percentage rose to almost 33 percent during the midday time period.

Home-Based-Work trips comprised approximately 30 percent of the weekday midday trips on Highway 101. During the Sunday peak period, Home-Based-Other (including Home-to-Hotel) trips represented almost 72 percent of the trips along Highway 101.

The majority of trips in the Highway 101 Corridor are made in single-occupant vehicles (SOVs). This is especially true of the work commute trip. The intercept survey found that in the weekday peak period, 82.3 percent of work trips on Highway 101 were in SOVs, with an overall average vehicle occupancy (AVO) during the peak period of 1.23 persons per vehicle for work trips. The *1990 Census Analysis of Journey to Work Information* estimates that 69 percent of the Santa Barbara Census Division's and 70 percent of Carpinteria's work-commute trips were drive-alone trips in 1990, a 5.6 to 7 percent increase compared to 1980 estimates. The *Journey to Work Information* AVO for home-to-work commute trips in Santa Barbara County to be approximately 1.11 persons per vehicle in 1990 (approximately 1.10 in the Study Area), down from 1.12 in 1980. The higher average vehicle occupancy observed for work trips on Highway 101 is most likely due to the larger carpool sizes typical of longer commute trips (e.g., to Ventura County). However, when the average vehicle occupancy for <u>all</u> trip purposes is considered, the AVO increased in Santa Barbara County from 1.38 to 1.41 persons per vehicle between 1980 and 1990 according to Caltrans travel survey information.

2.2.2 Roadway Characteristics

The following describes the physical characteristics of Highway 101 and the associated roadways in the Corridor:

Table 2-4
Summary of Person Trips by Trip Purpose

TRIP PURPOSE	1990 DAILY TRIPS	1990 % OF INTERNAL TRIPS	2015 DAILY TRIPS	2015 % OF INTERNAL TRIPS
Home-Work	210,275	14%	251,169	14%
Home-School	100,970	6%	117,980	6%
Home-Shop	170,830	11%	202,636	11%
Home-Other	456,218	30%	537,636	30%
Non Homebased-Work	186,752	12%	220,071	12%
Non Homebased Other	418,679	27%	492,563	27%
Subtotal (Internal Trips)	1,543,724		1,822,055	
Internal-External	105,000		149,700	
Visitor	61,094		74,091	
TOTAL	**1,709,818**		**2,045,846**	

Table 2-5
Summary of Survey Trips by Trip Purpose

PURPOSE	SUNDAY PEAK PERIOD		TUESDAY MIDDAY		TUESDAY PEAK PERIOD	
	No. of Survey Responses	Percent of Trips	No. of Survey Responses	Percent of Trips	No. of Survey Responses	Percent of Trips
Home-Work	159	11.4%	96	29.9%	895	62.2%
Home-School	36	2.6%	21	6.5%	56	3.9%
Home-Shop	160	11.4%	44	13.7%	86	6.0%
Home-Hotel	194	13.9%	16	5.0%	39	2.7%
Home-Other	808	57.7%	105	32.7%	268	18.6%
Work-Other	8	0.6%	24	7.5%	64	4.4%
Work-Hotel	1	0.1%	2	0.6%	3	0.2%
Other	34	2.4%	13	4.0%	29	2.0%
TOTAL	**1,400**	**100.0%**	**321**	**100.0%**	**1,440**	**100.0%**

Highway 101. Highway 101 is a freeway and the principal roadway serving the South Coast region of Santa Barbara County, carrying about two-thirds of all local east-west traffic. It traverses the entire length of the South Coast and forms the backbone of the area's street and highway network. Throughout the limits of the project (1.1 miles west of the Santa Barbara/Ventura County line to Milpas Street), approximately 12 miles, Highway 101 is a four lane freeway. There are thirteen full or partial interchanges on Highway 101 in the project area. The interchanges and interchange spacing are shown in Table 2-6.

The interchange structures along Highway 101 throughout the project area were built in the 1950's, at the time the highway was upgraded to a freeway. Some of these interchange structures do not meet

current Caltrans' design standards for vertical clearance under bridges, shoulder widths and ramp alignments, merge distances, and the inclusion of short hook ramps. In addition, two of the interchanges have left-lane on and off ramps (at Cabrillo Blvd./Coast Village Road and at Sheffield Road).

Although there are no continuous parallel arterials for the entire length of the Highway 101 Corridor, there are several facilities that complement Highway 101 by serving sub-regional and intra-community travel, providing alternate travel routes and distributing traffic between Highway 101 and the collector and local street systems. The following describes the existing roadways parallel to Highway 101 in the Study Area. (Also refer to Figure 2-1.)

Cabrillo Boulevard (Route 225). Cabrillo Boulevard (Route 225), a principal arterial, extends westerly from its interchange with Highway 101 in Montecito to Castillo Street, along the City of Santa Barbara waterfront district. West of Castillo Street, the roadway becomes a local street, Shoreline Drive. Route 225 continues north on Castillo Street, west on Cliff Drive and north on Las Positas Road to an interchange with Route 101. In the immediate vicinity of its interchange with Highway 101 in Montecito, Cabrillo Boulevard is a two-lane roadway. It widens to four lanes through the waterfront, with several signalized intersections. More than providing an alternative to Highway 101, Cabrillo Boulevard distributes traffic to the tourist/commercial oriented Santa Barbara waterfront area, and serves as a main artery for the City College and Mesa residential areas of Santa Barbara.

Old Coast Highway/Coast Village Road. Coast Village Road extends between Hot Springs Road and Olive Mill Road, serving a commercial area on the eastern boundary of the City of Santa Barbara. Coast Village Road is a two-lane roadway with on-street parking permitted along many sections and frequent driveways serving the numerous commercial establishments. Coast Village Road terminates on the west at the Hot Springs Road northbound on-ramp to Highway 101. Old Coast Highway continues from Hot Springs Road, immediately north of and parallel to Coast Village Road, to Salinas Street, providing a local street connection with downtown Santa Barbara.

North Jameson Lane. North Jameson Lane is a two-lane frontage road along the north side of Highway 101 between Olive Mill Road and Sheffield Drive/Ortega Hill Road. It provides a local street connection between the communities of Montecito and Summerland.

Ortega Hill Road/Lillie Avenue/Via Real. Ortega Hill Road is a two-lane roadway between Jameson Lane/Sheffield Drive and Lillie Avenue in the community of Summerland. Lillie Avenue is a two-lane roadway between Hollister Street and Greenwell Avenue in Summerland. East of Greenwell Avenue, the roadway becomes Via Real and extends easterly as a two-lane roadway to a point east of Santa Monica Road at the western end of the City of Carpinteria. Via Real connects to Carpinteria Avenue via an overcrossing of Highway 101 at Santa Ynez Road.

Carpinteria Avenue. The western terminus of Carpinteria Avenue is the southbound off-ramp from Highway 101 at the western edge of the City of Carpinteria; its eastern terminus is approximately 3.5 miles east, at the interchange of Highway 101 and Route 150. Carpinteria Avenue is the only continuous east-west facility running the length of Carpinteria. Within downtown Carpinteria, Carpinteria Avenue is fronted by strip commercial development and neighborhood shopping centers. It is a two-lane roadway for its entire length.

Route 192. State Route 192 is classified as a minor arterial and functions as an alternate parallel route extending between the Ventura County line and Route 154, approximately 2 miles inland and parallel to Highway 101, a distance of approximately 21 miles. It is a two-lane lane road for its entire length and serves many subareas north of the Highway 101 freeway. It has many narrow and curvy sections with limited sight distance, and narrow shoulders. Some sections have considerable grades that also slow travel. These features, coupled with typical posted speed limits of 25 to 40 miles per hour along much of its length, discourage its use as a through route.

2.2.3 Existing Operations

For analysis purposes, “screenlines” have been defined at four points along the Corridor. A screenline is an imaginary line which crosses each of the roadway facilities within a travel Corridor, defining the point along each roadway for which conditions will be evaluated and compared. Screenline analysis is a way to evaluate travel characteristics and traffic conditions for the Corridor as a whole, rather than by individual roadway facility. Figure 2-4 shows the four Highway 101 Corridor screenlines established for this study.

The following provides a description of existing traffic conditions along Highway 101 and the associated roadways in the Corridor.

Highway 101. Average weekday traffic volumes (1993) along Highway 101 range from 56,000 at the Ventura County line to 70,000 through Summerland, and continue to climb to 79,000 in Montecito and 84,000 east of Milpas Street. Traffic volumes during the peak summer months are approximately 15 to 20 percent greater.

Weekday peak period travel in the Corridor is directional, with a pronounced northwest movement during the morning peak hour and correspondingly heavy southeast movement during the evening peak hour. Within the Corridor, congestion occurs during the weekday periods, but is limited and localized around merge/diverge sections during the peak morning and evening commute periods. Average speeds along Highway 101 within the project area during weekday peak periods do not differ significantly from off-peak speeds, and are typically in excess of the posted speed limit of 55 miles per hour. A limited speed survey, conducted along Highway 101 during weekday evening peak periods resulted in average speeds in the southbound direction of between 60 and 67 miles per hour.

The *South Coast Route 101 Corridor Study* (SBCAG, 1990) found that weekend traffic volumes tended to be higher than average weekday traffic volumes. Weekend traffic was also directional, favoring the northbound direction on Saturday, with a correspondingly heavy southbound flow on Sunday. These patterns were confirmed during the data collection for the intercept travel survey task of this study, as described above. The highest number of observed vehicles on Highway 101 occurred southbound during the Sunday peak period survey. During that period, traffic flow was visibly heavier in the southbound direction (which was the survey direction) than the northbound direction. Congestion and reduced speeds do occur during Sunday peak periods in the southbound direction. Speed surveys conducted as part of this study along Highway 101 resulted in average speeds of approximately 28 miles per hour southbound on Sunday during the evening peak period from the Garden Street on ramp to the Casitas Pass Road off ramp.

Existing (1993) average daily traffic volumes and peak hour volumes along the Highway 101 Corridor in the project area were obtained from Caltrans' *1993 Traffic Volumes on California State Highways* and are summarized in Table 2-7.

Table 2-8 provides a comparison of existing (1993) average daily traffic volumes to estimated carrying capacity for Highway 101 and the associated roadways in the Corridor at each screenline (see Figure 2-4).

Table 2-9 presents historical average daily traffic volume data for Highway 101. During the ten year period between 1980 and 1990 traffic volumes along Highway 101 in the Corridor increased by an average of 58 percent. The average annual increase in traffic volumes from 1980 to 1990 was 5.8%, while this average increase has slowed to 2.2% for the years 1990 to 1993, most likely as a result of the slowing California economy.

Arterial Roadways: Review of Table 2-8 shows that the arterials parallel to Highway 101 within the Corridor are presently carrying traffic volumes well within their estimated daily carrying capacity. Daily capacity for each of the arterials analyzed was based on planning level estimates. For roadways within the community of Montecito, the estimated capacities were validated against the recommended acceptable capacities identified in the *Montecito Community Plan Update* (September, 1992). Traffic volumes on state routes were obtained from Caltrans; traffic volume counts for arterials were obtained from the cities of Santa Barbara and Carpinteria. Traffic volume data represents conditions in 1992-1993.

It is significant to again note that there is no continuous roadway facility which parallels Highway 101 for the length of the Corridor, and the discontinuous facilities that provide local access and circulation tend to be two-lane roadways with limited capacity.

2.3 FUTURE ASSUMPTIONS

The primary tool for forecasting future traffic conditions in the Highway 101 Corridor is the SBCAG travel forecasting model. The travel forecasting model was developed using the SYSTEM II travel forecasting software package and state-of-the-practice modeling techniques that meet accepted national and state standards for accuracy. The model has been recently updated by SBCAG staff, incorporating recently approved community plan land use *Regional Growth Forecast* (SBCAG, 1994) (RGF '94) demographics, and highway capacity assumptions consistent with the latest edition of the Highway Capacity Manual (HCM) Special Report 209, (TRB 1994). The model provides future average daily traffic volume forecasts for year 2015, based on forecast socio-economic data and highway network characteristics (assuming both no improvements to Highway 101 (No-Build) and with the widening of Highway 101 to six lanes (Build)).

The following section describes the assumptions upon which the future traffic forecasts are based, and summarizes the forecasted future traffic conditions within the Highway 101 Corridor.

2.3.1 Population and Employment Forecasts

The RGF 94, prepared by the Santa Barbara County Association of Governments, provides the forecast of population, employment, and household growth for Santa Barbara County. Information is provided for the county as a whole, its major economic regions, including the South Coast, and the seven cities within the County. The forecast target year is 2015. The forecasts contained in the RGF 94 are policy-based and rely on local land use plans to determine opportunities for, and constraints to future development.

Based on the forecasts contained in the RGF 94, the position of the South Coast as the urbanized core of Santa Barbara County is anticipated to change by 2015. The RGF 94 predicts that 62 percent of the estimated population growth between 1990 and 2015 will occur in the North County rather than in the South Coast. As a result, although the population in the South Coast is projected to increase by approximately 42,230 (a 22% increase) by year 2015, the proportion of the County's population living in the South Coast is forecast to decline from 52 percent of the total in 1990 to 49 percent in 2015.

Likewise, a slight redistribution of the County's employment from the South Coast to the North County is also expected to occur. The total number of jobs located in the South Coast is projected to increase from approximately 97,900 in 1990 to approximately 112,100 in 2015 (a 14 percent increase). This compares to a countywide increase in employment of approximately 24 percent. As a result, the proportion of total County employment located in the South Coast is projected to decrease from approximately 60 percent in 1990 to approximately 55 percent by 2015.

Growth and development on the South Coast is expected to occur at a slower rate than in the County as a whole, and particularly slower

than in the North County. In fact, the levels of development forecast for the North County, and specifically in and around Santa Maria, will lessen the position of the South Coast as the urban core of Santa Barbara County.

Growth trends in Ventura County could also potentially impact the South Coast area. In 1990, the U.S. Census estimated that approximately 2,433 (25 percent) of the 9,703 Santa Barbara County residents who worked outside Santa Barbara County, worked in Ventura County. Conversely, it was estimated that approximately 5,594 (40 percent) of the 13,900 workers who commuted to Santa Barbara County from outside the County, lived in Ventura County. This was confirmed by the April, 1994 License Plate survey results which found that 45 percent of drivers during the weekday evening peak period were traveling from Santa Barbara County to Ventura County.

In 1990, the estimated population of Ventura County was approximately 669,120 people. While 2015 population forecasts were not available, 2010 projections indicate that the County's population is forecast to increase by approximately 30 percent to 870,570 people. During the same period, employment is projected to increase by approximately 48 percent, from 275,000 jobs in 1990 to 407,600 jobs by 2010. Increased employment opportunities within Ventura County in the future could lessen the pressure on residents to seek employment outside the County. At the same time, the relative equity of jobs-to-population ratios between Ventura County and the South Coast might somewhat reduce the attractiveness of the South Coast to Ventura County job-seekers.

As part of the travel model 2015 forecast, the SBCAG assumed a 43 percent increase in trips between Santa Barbara County and areas outside the county (internal-external/external-internal trips) between 1990 and 2015. Over the 25 year period this equates to the growth rate that occurred in the Highway 101 Corridor between 1990 and 1993 which was lower than the rates observed in the 1980's. Although the model forecasts only a one percent growth in trips which both begin and end in the South Coast, a 30 percent increase in trips between the South Coast and areas outside the county is projected. This is attributable to the forecasted growth in Ventura County and areas to the south (see Table 2-10) and the relatively limited growth forecast for the South Coast based on near buildout conditions.

2.3.2 Future Roadway Network Characteristics

The baseline future condition, or "No Build" alternative, assumes that Highway 101, from 1.1 miles west of the Ventura County line to Milpas Street, will continue to be a four-lane freeway with no significant operational improvements. However, a number of other roadway improvements are programmed for implementation by 2015.

These improvements have been included in the SBCAG travel model 2015 No-Build highway network and include:

Castillo Street (route 225) at Montecito Street - Improve intersection to add turn lanes.
Route 101/Milpas Street Interchange – ramp and intersection improvements.
- Route 101/Mission Street Undercrossing - Widen undercrossing for turn lanes.
- Route 101 from Castillo Street to Route 217 - Restripe to eight lanes.
- Via Real - Extend Via Real from Bailard to Casitas Pass with 2 lanes.
- Via Real - Widen to 4 lanes between Santa Ynez Avenue and Santa Monica Road.
- Carpinteria Avenue/Carpinteria Creek Bridge - Widen to four lanes.

Carpinteria Avenue - Extend Carpinteria Avenue west to Santa Claus Lane (2 lanes); construct offroad bike lane.

Table 2-10
Trip Distribution Patterns for Santa Barbara County

	Trips Attracted To:		
Trips Produced In:	**South Santa Barbara County**	**North Santa Barbara County**	**External**
South Santa Barbara County:	335,350	73,240	18,950
1990	337,600	83,880	24,690
2015	1%	15%	30%
% Growth			
North Santa Barbara County:	73,210	636,140	33,560
1990	83,870	815,950	50,230
2015	15%	28%	50%
% Growth			
External to Santa Barbara County (Through)			
1990	18,940	33,560	4,350
2015	24,630	50,230	6,300
% Growth	50%	50%	45%

The capacity of all other roadways within the Corridor is assumed to remain unchanged between 1990 and 2015.

2.4 FUTURE CONDITIONS

The following section describes forecasted future conditions expected to influence traffic conditions in the Highway 101 Corridor.

2.4.1 Travel Characteristics

The total number of vehicle trips forecast for Santa Barbara County in the SBCAG travel model is expected to increase by 20 percent between 1990 and year 2015. Study Area trips (trips which either begin or end in the Study Area) are projected to only increase by approximately 4 percent. Trips which both begin and end in the Study Area (internal trips) are forecast to increase by only one percent between 1990 and 2015. This reflects the mature nature of development within the Corridor and the fairly limited future growth opportunities. Trips with one end in the Study Area and the other end elsewhere in Santa Barbara County are projected to increase by approximately 15 percent. This is consistent with the levels of population and employment growth forecast for the South Coast (22 percent and 14 percent respectively). Trips with one end in the Study Area and the other end outside Santa Barbara County are forecast to increase by approximately 30 percent between 1990 and 2015. Trips which travel through the county without stopping comprise a fairly small component of total trips. However, these trips are forecast to increase by approximately 45 percent between 1990 and 2015. (Refer to Table 2-10.)

The percentage each trip purpose is estimated by the SBCAG travel model to comprise of the total trips is not forecast to change significantly between the years 1990 and 2015. Work-related trips are estimated to represent approximately 23 percent of the total tripmaking in both 1990 and 2015. Home-Based Other and Non-Home-Based Other tripmaking (26 percent and 24 percent respectively) are the predominant trip purposes in both 1990 and 2015. Visitor trips, as measured on an average daily basis, are estimated to comprise approximately 4 percent of total tripmaking, the same as in 1990.

2.4.2 Future Roadway Operating Conditions

Table 2-11 presents 2015 traffic volume forecasts from the SBCAG travel forecasting model “No Build” scenario for each of the roadways across each of the screenlines. Screenline refinement procedures outlined in the National Cooperative Highway Research Program (NCHRP) *Report 255 - Highway Traffic Data for Urbanized Area Project Planning and Design,* were applied to the link volumes generated by the model. These “smoothing” procedures were applied to more accurately reflect the functional relationships between the various facilities within the Corridor, as well as to correct for minor inaccuracies inherent when regional travel forecasting models are applied at the project-specific level. The “smoothing” procedures are described in detail in Appendix E to this report.

For comparison purposes, existing traffic volumes (1993) have also been included. Review of Table 2-11 shows that by the year 2015, assuming no changes in mode choice or any significant increase in vehicle occupancy, Highway 101 is forecast to carry daily traffic volumes in excess of the capacity of a four-lane freeway (8,800 vehicles per hour) throughout the entire length of the Corridor. Compared to existing conditions, traffic volumes along Highway 101 are projected to increase from 22 percent east of

Salinas St. at the west end of the Corridor to 40 percent east of Casitas Pass Rd. at the east end of the Corridor.
Although traffic volumes along the arterials within the Corridor are projected to increase commensurate with the growth in traffic along Highway 101 (20 to 40 percent), acceptable levels of service will be maintained, with two exceptions. Route 192 (East Valley Road) through Montecito is forecast to carry traffic approaching or exceeding the acceptable capacity levels identified in the *Montecito Community Plan Update*. The result would likely be significant levels of congestion during peak traffic periods, with substantial delay, particularly at controlled intersections (either by four-way stop or traffic signal). Likewise, the volumes of traffic projected along Via Real east of South Padaro Lane may result in level of service D traffic flow conditions along that roadway. Again, this would translate to significant peak period congestion and delay, particularly at intersections.

2.5 STATEMENT OF THE TRAFFIC PROBLEM

In order to maintain acceptable levels of traffic flow along Highway 101, now and in the future, the traffic volumes along Highway 101 should not exceed 79,000 vehicles on an average daily basis for the four lane cross-section (assuming Highway 101's observed traffic peaking patterns of 10-12% of daily volumes occurring in the peak hour). This is based on an assumed capacity of 2,200 vehicles per lane per hour, operating at a desired level of service D or better, the level of service stipulated as the worst level acceptable in the SBCAG Congestion Management Program (CMP). In 1993, average daily traffic volumes along Highway 101 approached or exceeded 79,000 vehicles per day from approximately west of San Ysidro Road to the project limits at Milpas Street. By 2015, volumes are projected to increase from 17 to 40 percent along Highway 101 Corridor. If improvements and enhancements are not made to the transportation system in the South Coast to reduce vehicle trips and/or increase system capacity, travel demand in the Highway 101 Corridor will exceed capacity, creating level of service conditions which fall below the standards adopted by SBCAG on a receiving, daily basis.

The manner in which future travel levels are to be served in the Highway 101 Corridor is the focus of this study. Recognizing that the construction of additional freeway capacity may not be the most cost-effective long-term application of limited financial resources, and that pursuing a course which continues to encourage automobile dependency has significant "quality of life" implications for the communities within the Corridor, this study has evaluated alternative strategies to accommodate existing and projected travel demand along Highway 101.